Abstract

Systems and methods control physiological functions of the urinary tract using at least one electrode sized and configured to be located on, in, or near a targeted component of the pudendal nerve. The systems and methods apply an electrical signal to the electrode at a selected frequency to stimulate the targeted component. The selected frequency is a first frequency or range of frequencies for achieving a first physiologic response (e.g., controlling urinary continence) and a second frequency or range of frequencies, different than the first frequency, for achieving a second physiologic response different than the first physiologic response (e.g., controlling micturition).